CLAIM AMENDMENTS

Please amend claims 1, 2, 4, 6, 7, 9, 10, 11, 13, 16 and 18 as follows:

1. (Currently Amended) A latch ~~diagnostic~~ debugging method, comprising the steps of:

generating diagnostic data associated with a latch, in response to automatically analyzing said latch, wherein said diagnostic data comprises ~~latch operational and/or functional information~~ latch internal electrical functionality and status data for debugging of said latch;

graphically displaying said diagnostic data and user interactive features within a display area of a graphical user interface for permitting a user to initiate particular latch operational and debugging functionalities; ~~and~~

initiating a latch debugging operation through said graphical user interface in response to a user input provided to said graphical user interface; and

communicating latch debugging operational and functionality feedback information to said latch, in response to said user input provided to said graphical user interface.

2. (Currently Amended) The method of claim 1 ~~further comprising the step of:~~

wherein said interactive features comprise a plurality of buttons including a latch stimulus button, and the method further comprising the step of:

producing said latch stimulus in response to activating said latch stimulus button.

~~initiating a latch debugging operation in response to a user input provided to said graphical interface; and~~

~~communicating said latch debugging operation between said graphical user interface and said latch.~~

3. (Original) The method of claim 1 further comprising the step of:

automatically analyzing said latch during latch operations thereof.

4. (Currently Amended) The method of claim [2] 1 wherein said ~~diagnostic data comprises~~ latch internal electrical functionality and status data comprises motor current, positional feedback and/or pulse width modulation information.

5. (Original) The method of claim 1 further comprising the step of:

automatically modifying a functionality and an operation of said latch, in response to communicating latch operational and functionality feedback information to said latch.

6. (Currently Amended) A latch ~~diagnostic~~ debugging system, comprising:

a data processor for performing a selected debugging operation on a latch;

diagnostic data associated with ~~a~~ said latch, wherein said diagnostic data comprises latch internal electrical functionality and status data ~~operational and/or functional information~~ for debugging said latch and wherein said diagnostic data is generated in response to automatically analyzing said latch;

a graphical user interface graphically displaying said diagnostic data and user interactive features within a display area thereof, said interactive features permitting a user to diagnose and debug said latch, ~~for permitting a user to initiate particular latch operational and debugging functionalities;~~ wherein said latch debugging operation is initiated through said graphical user interface in response to a user input provided to said graphical user interface; and

a communications link between said graphical user interface and said latch over which latch debugging operational and functionality feedback information is communicated to said latch, in response to said user input provided to said graphical user interface.

7. (Currently Amended) The system of claim 6, wherein said interactive features comprise a plurality of graphically displayed buttons including a latch stimulus

button, said system producing latch stimulus in response to activation of said latch stimulus button. ~~further comprising latch debugging operation data, said latch debugging operation data being communicated over said communications link between said graphical user interface and said latch in response to said graphical user interface being activated to initiate a latch debugging operation.~~

8. (Original) The system of claim 6 wherein said latch is automatically analyzed during latch operations thereof.

9. (Currently Amended) The system of claim 6 wherein a functionality and an operation of said latch are automatically modified, in response to communicating latch operational and functionality feedback information to said latch over said communications link. ~~said diagnostic data~~ comprises ~~internal electrical functionality and status data.~~

10. (Currently Amended) The system of claim 6 ~~wherein a functionality and an operation of said latch are automatically modified, in response to communicating latch operational and functionality feedback information to said latch over said communications link.~~ wherein said latch internal electrical functionality and status data comprises motor current, positional feedback and/or pulse width modulation information.

11. (Currently Amended) The system of claim 6 wherein said latch internal electrical functionality and status data comprises motor current, positional feedback and/or pulse width modulation information versus time. ~~diagnostic data~~ comprises ~~motor current, positional feedback and/or pulse width modulation information.~~

12. (Previously Amended) The system of claim 11 wherein said latch is automatically analyzed in response to said graphical user interface receiving a user input.

13. (Currently Amended) A program product residing in a memory of a data-processing system for diagnosing a latch, comprising:

instruction means residing in a data-processing system for generating diagnostic data associated with a latch, in response to automatically analyzing said latch; wherein said diagnostic data comprises latch internal electrical functionality and status data ~~operational and/or functional information~~ for debugging said latch;

instruction means residing in a data-processing system for providing a graphical user interface for graphically displaying said diagnostic data and user interactive features within a display area thereof for permitting a user to initiate particular latch operational and debugging functionalities; ~~and~~

instruction means residing in a data-processing system for initiating a latch debugging operation through said graphical user interface in response to a user input provided to said graphical user interface; and

instruction means residing in a data-processing system for communicating latch debugging operational and functionality feedback information from said graphical user interface to said latch, in response to said user input provided through said graphical user interface.

14. (Original) The program product of claim 13 wherein said latch is automatically analyzed in response to user input provided through said graphical user interface.

15. (Original) The program product of claim 13 wherein said latch is automatically analyzed during latch operations thereof.

16. (Currently Amended) The program product of claim 13 wherein said ~~diagnostic data comprises latch internal electrical functionality and status data~~ latch internal electrical functionality and status data comprises latch motor current, positional feedback and/or pulse width modulation information.

17. (Original) The program product of claim 13 further comprising instruction means residing in a data-processing system for automatically modifying a functionality and an operation of said latch, in response to communicating latch operational and functionality feedback information to said latch over said communications link.

18. (Currently Amended) The program product of claim 13, wherein said latch internal electrical functionality and status data comprises motor current, positional feedback and/or pulse width modulation information versus time ~~further comprising instruction means residing in a data processing system for initiating a latch debugging operation in response to activating said graphical user interface and for communicating said latch debugging operation between said graphical user interface and said latch~~.

19. (Previously Amended) The program product of claim 13, wherein said instructions means further comprises signal bearing media.

20. (Previously Cancelled)

21. (Cancelled)